# Performance Data Sheet

## AE4440Y-FZ1A

## General Information

| | | | |
|---|---|---|---|
| **Model** | AE4440Y-FZ1A | **Refrigerant** | R-134a |
| **Test Condition** | ASHRAE | **Performance Test Voltage** | 240V ~ 50HZ |
| **Return Gas** | 35°C (95°F) RETURN GAS | **Motor Type** | CSIR |

## Performance Information

| Evap Temp (°F) | | Condensing Temperature (°F) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **80** | **90** | **100** | **110** | **120** | **130** | **140** |
| **5** | Btu/h | 1820 | 1740 | 1650 | 1570 | 1490 | 1420 | 1340 |
| | Watts | 156 | 138 | 118 | 94.9 | 70.3 | 44.7 | 18.6 |
| | Amps | | | | | | | |
| | Lb/h | 44.0 | 49.7 | 55.9 | 62.8 | 70.3 | 78.5 | 87.5 |
| **10** | Btu/h | 2070 | 1970 | 1870 | 1770 | 1680 | 1590 | 1500 |
| | Watts | 168 | 152 | 132 | 111 | 86.9 | 62.0 | 36.7 |
| | Amps | | | | | | | |
| | Lb/h | 47.2 | 52.9 | 59.0 | 65.8 | 73.1 | 81.2 | 90.0 |
| **15** | Btu/h | 2350 | 2230 | 2110 | 2000 | 1890 | 1780 | 1680 |
| | Watts | 180 | 165 | 147 | 127 | 104 | 80.3 | 55.8 |
| | Amps | | | | | | | |
| | Lb/h | 50.8 | 56.4 | 62.5 | 69.1 | 76.4 | 84.3 | 93.0 |
| **20** | Btu/h | 2650 | 2510 | 2380 | 2250 | 2120 | 1990 | 1870 |
| | Watts | 191 | 178 | 162 | 143 | 122 | 99.3 | 76.0 |
| | Amps | | | | | | | |
| | Lb/h | 54.6 | 60.2 | 66.3 | 72.8 | 80.0 | 87.8 | 96.3 |
| **25** | Btu/h | 2980 | 2820 | 2670 | 2520 | 2360 | 2220 | 2070 |
| | Watts | 201 | 191 | 176 | 159 | 140 | 119 | 97.0 |
| | Amps | | | | | | | |
| | Lb/h | 58.9 | 64.5 | 70.5 | 77.0 | 84.0 | 91.7 | 100 |
| **30** | Btu/h | 3340 | 3170 | 2990 | 2810 | 2640 | 2470 | 2300 |
| | Watts | 211 | 203 | 191 | 176 | 158 | 139 | 119 |
| | Amps | | | | | | | |
| | Lb/h | 63.6 | 69.1 | 75.1 | 81.5 | 88.5 | 96.1 | 104 |
| **35** | Btu/h | 3740 | 3540 | 3340 | 3140 | 2940 | 2740 | 2550 |
| | Watts | 220 | 215 | 205 | 192 | 177 | 160 | 141 |
| | Amps | | | | | | | |
| | Lb/h | 68.7 | 74.3 | 80.2 | 86.6 | 93.5 | 101 | 109 |
| **40** | Btu/h | 4170 | 3940 | 3720 | 3490 | 3260 | 3040 | 2820 |
| | Watts | 229 | 226 | 219 | 208 | 195 | 180 | 164 |
| | Amps | | | | | | | |
| | Lb/h | 74.3 | 79.9 | 85.8 | 92.1 | 99.0 | 106 | 114 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **45** | Btu/h | 4640 | 4390 | 4130 | 3870 | 3620 | 3370 | 3120 |
| | Watts | 236 | 236 | 232 | 224 | 214 | 201 | 187 |
| | Amps | | | | | | | |
| | Lb/h | 80.4 | 86.0 | 91.9 | 98.2 | 105 | 112 | 120 |
| **50** | Btu/h | 5150 | 4860 | 4580 | 4290 | 4010 | 3720 | 3450 |
| | Watts | 242 | 245 | 244 | 239 | 232 | 222 | 210 |
| | Amps | | | | | | | |
| | Lb/h | 87.0 | 92.6 | 98.6 | 105 | 112 | 119 | 127 |
| **55** | Btu/h | 5700 | 5380 | 5060 | 4740 | 4430 | 4110 | 3800 |
| | Watts | 246 | 253 | 255 | 254 | 250 | 243 | 234 |
| | Amps | | | | | | | |
| | Lb/h | 94.2 | 99.9 | 106 | 112 | 119 | 126 | 134 |
| **60** | Btu/h | 6290 | 5940 | 5580 | 5230 | 4880 | 4530 | 4190 |
| | Watts | 250 | 260 | 266 | 268 | 267 | 263 | 257 |
| | Amps | | | | | | | |
| | Lb/h | 102 | 108 | 114 | 120 | 127 | 134 | 141 |

| COEFFICIENTS | CAPACITY | POWER | CURRENT | MASS FLOW |
|---|---|---|---|---|
| C1 | 2.150848E+03 | 1.172512E+02 | 3.026155E+00 | 8.076051E+00 |
| C2 | 6.022653E+01 | -3.062218E-01 | -6.839646E-03 | 4.663559E-01 |
| C3 | -5.465716E+00 | 3.075027E+00 | -1.836567E-02 | 3.412313E-01 |
| C4 | 7.587051E-01 | -3.788554E-02 | 6.432403E-05 | 3.633946E-03 |
| C5 | -2.119470E-01 | 4.548033E-02 | 1.250424E-04 | 3.254007E-03 |
| C6 | -2.824011E-02 | -4.274534E-02 | -3.406131E-03 | 7.355903E-05 |
| C7 | 2.439339E-03 | -1.704572E-04 | 4.407318E-08 | 4.106046E-05 |
| C8 | -3.879039E-03 | 4.659570E-04 | 4.189894E-08 | 1.896522E-05 |
| C9 | -1.255858E-04 | -1.445680E-04 | -1.879229E-08 | -2.624305E-05 |
| C10 | 1.333638E-04 | 1.063735E-04 | 4.762951E-08 | 1.020869E-05 |

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature

# Performance Data Sheet

## AE4440Y-FZ1A

## General Information

| | | | |
|---|---|---|---|
| **Model** | AE4440Y-FZ1A | **Refrigerant** | R-134a |
| **Test Condition** | EN12900 ASERCOM | **Performance Test Voltage** | 240V ~ 50HZ |
| **Return Gas** | 20°C (68°F) RETURN GAS | **Motor Type** | CSIR |

## Performance Information

| Evap Temp (°C) | | Condensing Temperature (°C) | | | |
|---|---|---|---|---|---|
| | | 30 | 40 | 50 | 60 |
| -15 | Watts (Capacity) | 488 | 429 | 369 | 311 |
| | Watts (Power) | 253 | 266 | 281 | 303 |
| | Amps | 2.04 | 2.00 | 2.01 | 2.08 |
| -10 | Watts (Capacity) | 619 | 545 | 471 | 398 |
| | Watts (Power) | 276 | 293 | 312 | 336 |
| | Amps | 2.09 | 2.06 | 2.09 | 2.19 |
| -6.7 | Watts (Capacity) | 719 | 634 | 548 | 463 |
| | Watts (Power) | 291 | 311 | 333 | 360 |
| | Amps | 2.12 | 2.11 | 2.16 | 2.26 |
| -5 | Watts (Capacity) | 775 | 684 | 591 | 499 |
| | Watts (Power) | 298 | 321 | 344 | 373 |
| | Amps | 2.15 | 2.14 | 2.19 | 2.30 |
| 0 | Watts (Capacity) | 960 | 847 | 733 | 619 |
| | Watts (Power) | 318 | 348 | 378 | 412 |
| | Amps | 2.21 | 2.23 | 2.30 | 2.43 |
| 5 | Watts (Capacity) | 1180 | 1040 | 899 | 760 |
| | Watts (Power) | 336 | 375 | 412 | 453 |
| | Amps | 2.29 | 2.33 | 2.42 | 2.57 |
| 7.2 | Watts (Capacity) | 1280 | 1130 | 981 | 830 |
| | Watts (Power) | 344 | 386 | 427 | 471 |
| | Amps | 2.33 | 2.38 | 2.48 | 2.64 |
| 10 | Watts (Capacity) | 1430 | 1260 | 1090 | 926 |
| | Watts (Power) | 351 | 399 | 446 | 495 |
| | Amps | 2.39 | 2.44 | 2.55 | 2.72 |

| | | | | | |
|---|---|---|---|---|---|
| **15** | Watts (Capacity) | 1710 | 1520 | 1320 | 1120 |
| | Watts (Power) | 363 | 422 | 478 | 537 |
| | Amps | 2.49 | 2.56 | 2.70 | 2.89 |

| COEFFICIENTS | CAPACITY | POWER | CURRENT | MASS FLOW |
|---|---|---|---|---|
| C1 | 1281.005 | 194.8445 | 2.52435 | |
| C2 | 53.71831 | -1.69677 | 0.00284602 | |
| C3 | -10.02751 | 5.684332 | -0.0191847 | |
| C4 | 0.8388713 | -0.1266693 | 0.000230909 | |
| C5 | -0.4560996 | 0.2099672 | 0.000400389 | |
| C6 | -0.02910516 | -0.07014965 | 0.000294119 | |
| C7 | 0.004167931 | -0.001068532 | 0 | |
| C8 | -0.00693736 | 0.002690764 | 0 | |
| C9 | -0.0001002843 | -0.0007992287 | 0 | |
| C10 | 0.0002072667 | 0.0005958257 | 0 | |

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature